when I waſhed away, I found Globules of Mercury in many places under the *Bronchiæ*, and upon Examination they proved to be in the *Arteria pulmonalis*. I have preſs'd theſe Globules backwards and forwards, and made ſome of them get out at the holes made in the *Veſiculæ* above deſcrib'd. I took ſome pains to find where the *Sanies* was received into the *Bronchiæ*, but could not ſatisfie my ſelf. From hence may appear the danger of uſing Mercury in humane Bodies, ſo as that it may get into the Maſs of Blood, eſpecially into the Lungs; they wanting that brisk ſtrong motion which the Muſcles have in other parts, which are able to force it along with the Blood, in order to the raiſing a Salivation. Their lax ſpongy Texture makes them extreamly unfit for clearing themſelves of ſo troubleſome a Gueſt as Mercury is. That it has this Effect on humane Lungs, is plain from what we daily ſee in perſons that have been often-flux'd, who are after obſerv'd to dye of Conſumptions that will not give way to Medicine.

Medicina Hydroſtatica, *or Hydroſtaticks applied to the* Materia Medica, *ſhewing how by the Weight that divers Bodies uſed in Phyſick have in Water, one may diſcover whether they be Genuine or Adulterate. By the Honourable* ROBERT BOYLE, *Fellow of the Royal Society*, London, 8vo 1690. *Printed for* Sam. Smith.

THE Honourable Author deſigns in this Treatiſe to ſhew, that by weighing Bodies in Water, comparing their weight in Air, and from thence deducing the proportion of weight to Water, the Specific Gravity of Bodies may be more exactly determined; counterfeits diſtinguiſht from Genuine, and the mixture of mineral Particles in Stone diſcovered. *Archimedes* firſt obſerved, That a Body heavier than Water, weighs leſs in

Water than in the Air, by the weight of as much Water as is equal to it in Bulk. The difference then of the Weights in Air and Water, gives the weight of ſo much Water, and dividing the greater number by the leſſer, the Quotient compared to unity, will be the proportion of the Weights of the ſolid Body and Water.

Rock Cryſtal, and the *Icecles* of *Vaults* are us'd as the Standard, (being the moſt homogeneous and ſimple) to compare other Stony Bodies with, which if found heavier are preſum'd to contain matter heavier *in ſpecie*. They are to water as $2\frac{2}{3}$ to 1. *Lapis Hæmatites* almoſt double to the Standard, and *Iron* is diſcover'd in it by the *Styptical* taſte of its Flowers, and by the black colour when mixt with Galls. *Lapis Lazuli* having a vomitive Quality as 3 to 1. *Loadſtone* more than 4 to 1. *Lap. Calaminaris*, us'd in the turning Copper into Braſs, and of a Quality very reſtringent, appears to weigh as almoſt 5 to 1. *Coral*, truly therefore eſteem'd a *Lithodendron* ſomewhat exceeds *Cryſtal*. *Pearl* near the weight of *Cryſtal*. *Calculi Humani* and *Bezoars* (Animal Concretions) amount not to twice the weight of Water, and are by a fifth part lighter than *Cryſtal*, by which counterfeit *Bezoars* are detected : ſuch an one being found as heavy as a mineral. It is further obſerved that counterfeit *Crabs Eyes* are of much more weight than natural. *Falſe Stones* are eaſily detected, the *Mineral* which gives the *Colour* making them preponderate to true *Gems*. *Falſe Coyns* in this manner are eaſily diſcoverable.

Our Author having in theſe particulars ſhewn in what manner all ſolid Bodies heavier than Water may be compar'd to one another, and not only their Specific Gravity, but their qualities very often detected; comes now to conſider and propoſe, 1. How Bodies *lighter* than Water may be examined in it, *viz.* by adding Lead to Wax or Fir-wood, and ſubducting for the heavy Body ſo added. 2. How Fluids, as Mercury, or Chymical Oyls of Cloves, *&c.* or *Bodies* diſſoluble in *Water*, as *Sublimate*, *Alum*, *Vitriol* or Fragments of any brittle Body, *viz.* by a little Glaſs Bucket or Viol ſtopt, which may receive theſe Bodies, adding ſo much Water as will fill the *Spatiola* of the Fragments, up to the brim of the Glaſs; for which allowance muſt be made in the computation of the weight, both in the *Air* and *Water.*

Sublimate which wants its due proportion of ☿ will be this way diſcover'd, and *Roman Vitriol* mixed with *Alum.* It is here obſerv'd that ☿ is to water as 14 to 1. But the more eaſie and ſimple Method of weighing Bodies diſſoluble in Water, is to uſe the thinner *Oils*, ſuch as *Oil* of *Turpentine* of the firſt riſe in diſtillation.

Having hitherto examin'd Bodies by Water and Oils, our Author proceeds to examine the weight of *Liquors* by weighing *Solids* in them. For if a heavy Body in Water loſe ſo much of its weight as the quantity of Water weighs that is of an equal bulk to the Body, the proportion of the weight of all *Liquors* will be eaſily obtained. For inſtance, A piece of *Amber* of between 3 and 4 Drams weighed in Water $6\frac{3}{4}$ gr. in *Red French Wine* $8\frac{1}{2}$ gr. in *Brandy* $17\frac{1}{8}$ gr. in rectified Spirit of Wine $34\frac{1}{2}$ gr. This way may be applyed to compare all ſorts of Liquors, as Wine in the Muſt, Mature, decaying, vappid. Juices of Herbs, Beer, Sider, *&c.* But Acids are heavier than Water. Hence the Degrees of their acidity may be obſerved. Of Waters, Rain Water ſeems the lighteſt, and ſcarce a 1000th part difference diſcover'd in any of them. This is particularly apply'd to the famed Water of *Ganges*, tho Travellers aſſert an extraordinary lightneſs in it.

In the laſt place the bulk of ſolid Bodies may be found out by this Method. For ſince a Cubical Inch of Water weighs 256 gr. and as much of Oil of *Turpentine* 221 gr. if a Body of any magnitude and irregular ſhape loſe ſo much or more times that weight in Water or Oil, it is of a Magnitude equal to one or more Cubical Inches.

In the ſubjoyn'd Tract, our Author treats particularly of Minerals, and obſerves that *Emery* is as 4 to 1 to Water. *Jet* lighter than *Cryſtal*; ſo is *Foſſil Amber*, *Sulphur Vive*, *Engliſh* and *Venetian Talk.* In an *American Talk* heavier than *Cryſtal*, a Metalline Subſtance was obſerv'd. *Fine Gold* is as 19 to 1 to Water. Hence any Fallacious Mixture us'd by the *Negrees* in *Gold-ſand* may be obſerv'd. *Braſs* is not quite half ſo heavy as *Gold*, &c. *The whole Book is made up of curious Remarks and Experiments, ſuch as uſually proceed from its renowned Author, whoſe ſingle Name is more than ſufficient to recommend it to the peruſual of the Studious Naturaliſt.*

FINIS.